

FINAL YEAR PROJECT • B.TECH COMPUTER SCIENCE

Crop Disease Detection using CNN

Leaf photos diagnosed by a phone app

PRESENTED BY

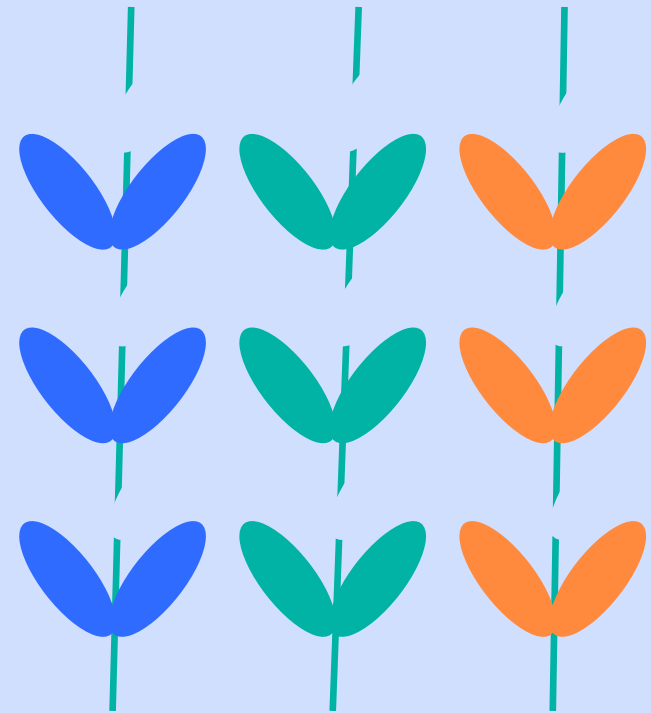
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**Computer Science,
2025–26**



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**Crop disease identification
is still handled manually in
most places — slow, error-
prone and hard to track.**

Why this project matters

Problem statement

01

Manual work

Crop disease identification takes hours of repetitive effort.

02

Errors

Mistakes creep in and are hard to trace.

03

No insight

Farmers and agri-officers lack data to make decisions.

Objectives

- Automate the core steps of crop disease identification
- Give farmers and agri-officers a simple, mobile-friendly interface
- Store data securely and generate reports
- Evaluate the system against the existing process

EXISTING WORK

Literature survey

Study	Approach	Limitation
Study A	Rule-based automation	Not adaptive
Study B	Mobile data collection	No analytics
Commercial tools	Full-featured suites	Costly and complex

Representative summaries — replace with your own citations.

Existing vs proposed system

Existing system

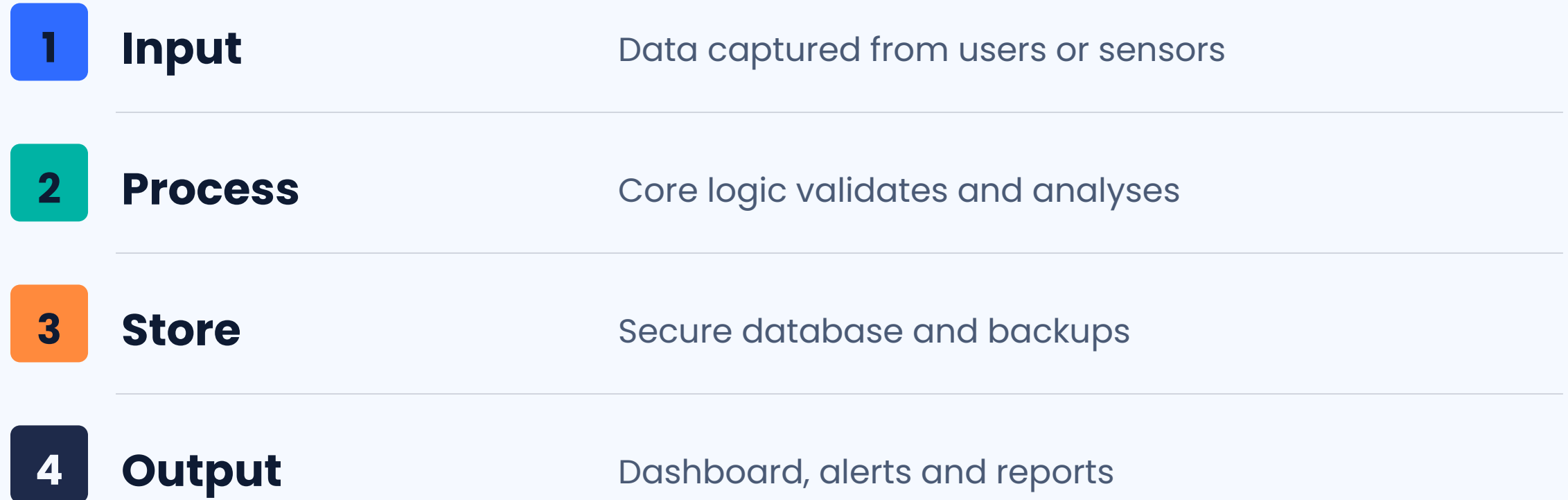
- ✓ Manual records
- ✓ Slow turnaround
- ✓ No reports

Proposed system

- Automated workflow
- Real-time dashboard
- One-click reports

HOW IT WORKS

System architecture



Block diagram

Every module talks through one simple, testable interface.

The system is built in layers: an input layer, a processing service, a database and a dashboard. Each layer can be tested independently, which keeps crop disease detection using cnn simple to maintain and extend.



Block diagram / flowchart

Technology stack

01

TensorFlow

CNN model training

02

Keras

Transfer learning

03

Flask

Prediction API

04

Android

Farmer app

Project timeline

Jul

Requirement study

Survey of users and existing tools

Sep–Oct

Development

Modules built and unit tested

Dec

Report

Documentation and final review

Aug

Design

Architecture, database and UI wireframes

Nov

Testing

Integration and field testing

BUILD

Implementation snapshots



Image 1

Main dashboard

Overview of live data



Image 2

Data entry

Simple forms with validation



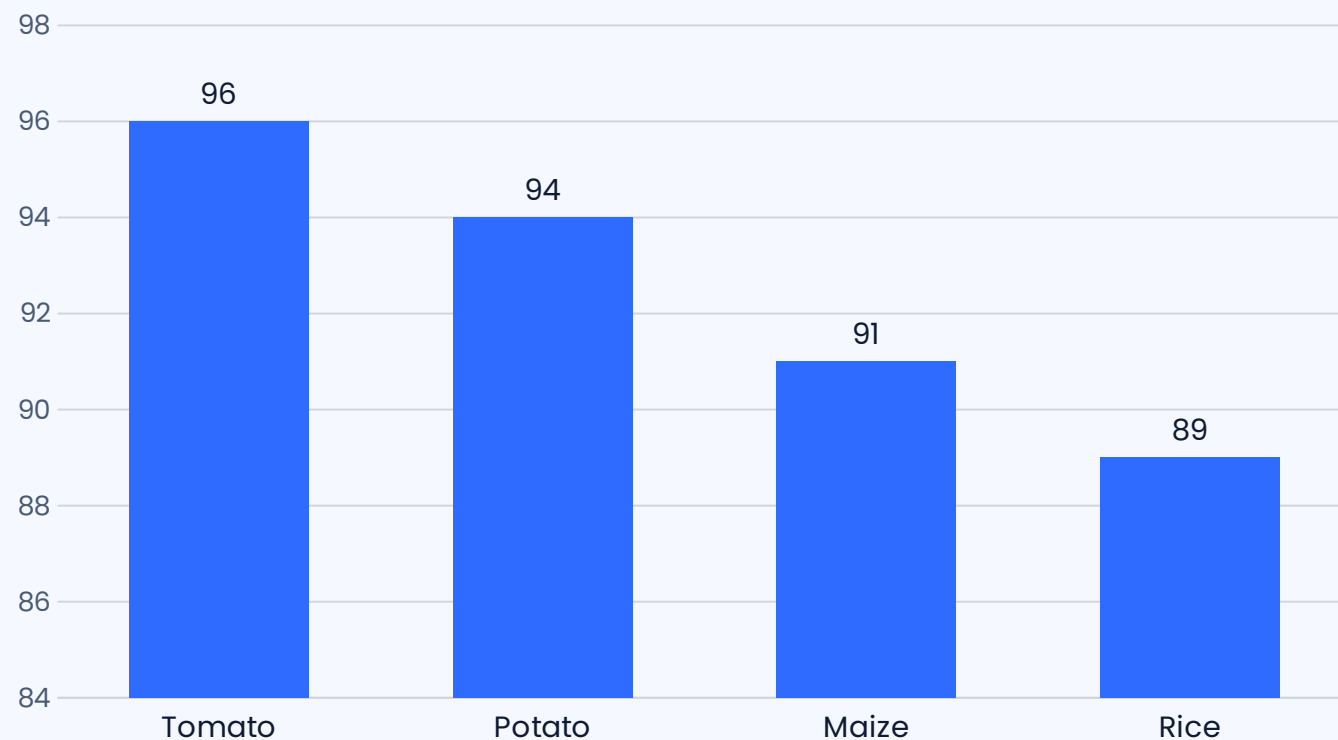
Image 3

Reports

Exportable summaries

EVALUATION

Results



Sample data for illustration — replace with your own figures.

93%

average accuracy

The prototype improved steadily over the evaluation period (sample data).

Conclusion

- Crop Disease Detection using CNN meets its main objectives
- Automation saves time and reduces errors for farmers and agri-officers
- The design is simple to extend and maintain

References

- [1] A. Author, "Title of the paper," Journal Name, vol. 12, pp. 1–10, 2023.
- [2] B. Author and C. Author, Book Title, 2nd ed. Publisher, 2022.
- [3] D. Author, "Conference paper title," in Proc. Conference, 2024.
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Thank you

Questions and suggestions are welcome.

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